FAULT DETECTION FOR INDUSTRIAL DIAGNOSIS IN AN AGRO-ALIMENTARY PRODUCTION SYSTEM

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ABSTRACT

The increasingly important automation of the manufacturing processes has made into evidence the needs in dependability for the installations. To ensure the industrial process dependability, the establishment of a monitoring system is primordial whose role is to recognize and to indicate in real time the behavior anomalies starting from information available on the system. Indeed the function of monitoring of a system is to detect, locate and diagnose the faults, which can affect its performances and its dependability.

The objective of these communication consists of the study and the conception of a detection module based on the techniques of static analysis and modelling, the matter is of establishing the operations which starting from the data coming from the industrial system make it possible to detect the abnormal situations in order to prevent or to reduce the dysfunction risks. Thus, the study consists in developing a detection module of the dysfunction for the diagnosis tool system.

Our study is interested particularly at the stage of fault detection, which precedes any stage of diagnosis, based on the application of the test of Page-Hinckley for a system of pasteurization of agro-alimentary production system.